

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization International Bureau



(43) International Publication Date
26 February 2004 (26.02.2004)

PCT

(10) International Publication Number
WO 2004/017204 A3

(51) International Patent Classification⁷: G06F 11/34

(21) International Application Number:
PCT/IL2003/000671

(22) International Filing Date: 12 August 2003 (12.08.2003)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
151251 14 August 2002 (14.08.2002) IL

(71) Applicant (for all designated States except US): ELTA SYSTEMS LTD. [IL/IL]; 100 Yitzhak Hanassi Blvd., P.O.Box 330, 77102 Ashdod (IL).

(72) Inventors; and

(75) Inventors/Applicants (for US only): GOSTYNSKI, Victor [IL/IL]; 38 Har Mezada st., 77711 Ashdod (IL). DORF, Shaul [IL/IL]; 24 Chaviva Reich st., 58595 Ashdod (IL).

(74) Agent: MILLER - SIERADZKI ADVOCATES & PATENT ATTORNEYS; 18 Mahanaim st., P.O.Box 6145, 31061 Haifa (IL).

(81) Designated States (national): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (regional): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

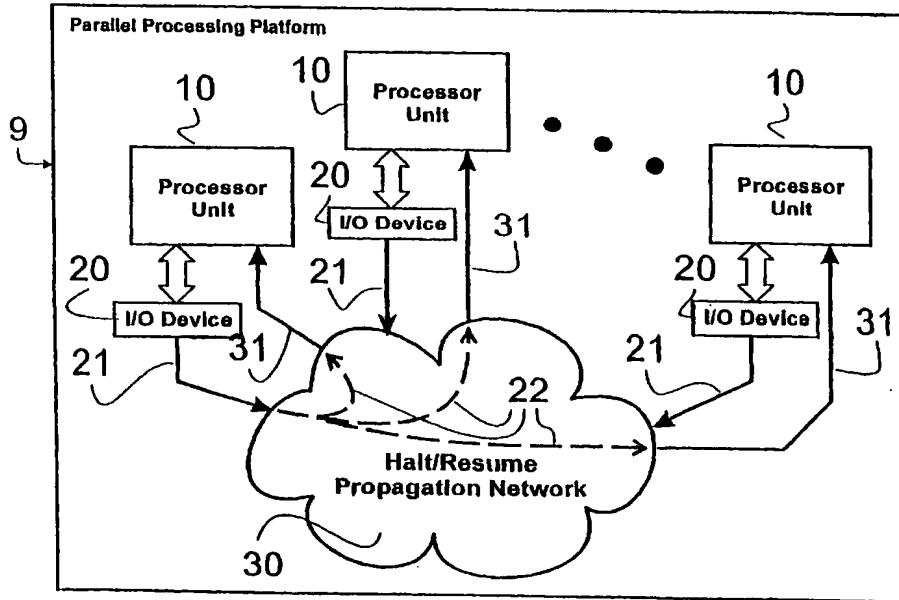
Published:

- with international search report
- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments

(88) Date of publication of the international search report:
25 March 2004

[Continued on next page]

(54) Title: PARALLEL PROCESSING PLATFORM WITH SYNCHRONOUS SYSTEM HALT/RESUME



WO 2004/017204 A3

(57) Abstract: A method for synchronous debugging of a parallel processing platform, the platform comprising a plurality of processors executing code, the code including one or more breakpoints to allow debugging of the code. The method comprises upon a processor reaching a breakpoint, propagating a halt command to all of the processors in the platform; thereby halting system execution synchronously to enable examination of the states of the processors.



For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

INTERNATIONAL SEARCH REPORT

Int'l Application No
PCT/IL 03/00671

A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 G06F11/34

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
IPC 7 G06F

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the International search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, PAJ, IBM-TDB

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category ^o	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 5 193 187 A (SPIX GEORGE A ET AL) 9 March 1993 (1993-03-09) column 1, line 29 - line 35 column 2, line 50 -column 3, line 33 column 4, line 36 -column 5, line 21 column 5, line 39 - line 50 column 6, line 10 - line 20 figures 2,3,5,7,11 -----	1-8
X	US 5 678 003 A (BROOKS JEFFREY S) 14 October 1997 (1997-10-14) column 2, line 26 - line 54 column 3, line 18 - line 62 column 5, line 55 - line 65 column 6, line 4 - line 51 figures 1,3,4 -----	1-8
		-/-

Further documents are listed in the continuation of box C.

Patent family members are listed in annex.

^o Special categories of cited documents :

- "A" document defining the general state of the art which is not considered to be of particular relevance
- "E" earlier document but published on or after the international filing date
- "L" document which may throw doubts on priority, claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- "O" document referring to an oral disclosure, use, exhibition or other means
- "P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

"&" document member of the same patent family

Date of the actual completion of the international search

4 February 2004

Date of mailing of the international search report

10/02/2004

Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2
NL - 2280 HV Rijswijk
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,
Fax: (+31-70) 340-3016

Authorized officer

Rinelli, P

INTERNATIONAL SEARCH REPORT

Intel Application No
PCT/IL 03/00671

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	PATENT ABSTRACTS OF JAPAN vol. 018, no. 132 (P-1704), 4 March 1994 (1994-03-04) & JP 05 313946 A (NIPPON TELEGR & TELEPH CORP ; OTHERS: 02), 26 November 1993 (1993-11-26) abstract -----	1,5
A	-----	2,6
X	"CHECKSTOP-ON-STOP CAPABILITY FOR MULTIPROCESSOR DEBUG" IBM TECHNICAL DISCLOSURE BULLETIN, IBM CORP. NEW YORK, US, vol. 37, no. 4B, 1 April 1994 (1994-04-01), page 455 XP000451312 ISSN: 0018-8689 abstract -----	1-8

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/IL 03/00671

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 5193187	A 09-03-1993	US 5197130 A AU 7151991 A CA 2071481 A1 DE 69033272 D1 DE 69033272 T2 EP 0512007 A1 JP 5502958 T US 6195676 B1 WO 9110194 A1 US 5499356 A US 5381536 A US 5561784 A US 5524255 A US 5640524 A US 5717881 A US 5706490 A US 5623650 A US 5745721 A US 5659706 A US 5544337 A US 5208914 A US 5168547 A US 5239629 A US 5175862 A US 5165038 A US 5430884 A US 5168570 A US 5179702 A JP 5508046 T WO 9120042 A1	23-03-1993 24-07-1991 30-06-1991 07-10-1999 20-04-2000 11-11-1992 20-05-1993 27-02-2001 11-07-1991 12-03-1996 10-01-1995 01-10-1996 04-06-1996 17-06-1997 10-02-1998 06-01-1998 22-04-1997 28-04-1998 19-08-1997 06-08-1996 04-05-1993 01-12-1992 24-08-1993 29-12-1992 17-11-1992 04-07-1995 01-12-1992 12-01-1993 11-11-1993 26-12-1991
US 5678003	A 14-10-1997	NONE	
JP 05313946	A 26-11-1993	NONE	